Two types of pollution exist depending on how they originate.

Point source pollution enters the environment from a specific point, like a factory discharge pipe or the discharge from a sewage treatment plant. ***Nonpoint source pollution***, or NPS pollution, enters the environment from no specific point, but from over a widespread area. Stormwater runoff from urban or agricultural areas is an example of NPS pollution. Unlike point source pollution, nonpoint source pollution is more difficult to identify and control. As in other states, nonpoint source pollution is considered the largest threat to water quality in Hawaii. Both point and nonpoint sources of pollution can affect ground and surface water quality.

What is soil erosion?

Erosion is the movement of soil particles by wind and water. In Hawaii, soil erosion occurs on agricultural, forest, military, and urban lands where there is a lack of vegetative cover. Improperly designed roads, grading practices, overgrazing, and disturbance from feral pigs and goats are some causes of erosion.

Soil can be both a water pollutant and a carrier of other pollutants. Sediments can clog waterways and drainage areas, which in turn can reduce the capacity of that drainage area to retain flood waters. Additionally, pesticides, toxins, and nutrients can attach themselves to eroding soil particles and be carried to surface waters. Eventually, the eroded soil particles can be deposited in our bays where the marine ecosystem and recreational uses can be affected. Costly maintenance and dredging may be needed to maintain waterways and bays.

Controlling soil erosion on the farm, in urban areas, in the home landscape, and on military lands is necessary to help protect our water resources.

What can you do around your home?

1. Cover bare soil with vegetation, especially sloping areas and places near water bodies.
2. Have your soil tested before applying fertilizers. Apply only what you need.
3. Many common household products contain substances that are considered hazardous, including batteries, motor oil, gasoline, paint thinner, car wax, furniture polish, oven, drain, and toilet cleaners, fertilizers, and pesticides.
    - Identify the products you use that are considered hazardous.
    - Read the label and use only as directed.
    - Buy only what you need and avoid leftovers.
    - Use non-toxic alternatives whenever possible.
    - Properly dispose of household hazardous waste.
    - Upgrade from a cesspool to aseptic system.

How does nonp enter

As water moves over the landscape, either as surface infiltration to the groundwater, it can pick up and/or with which it comes into contact, carrying them to g water resources. The type of contaminants picked u infiltrating waters will vary depending on the type o and the potential sources of contamination that exist. waters from a residential area may contain fertilizers lawns and gardens, and contaminants associated wit gasoline, motor oil, or lead.

What can you do in your g

Once our water resources are contaminated, clean u technologies can be expensive. The best protection guarding our current and future resources is imperat ensure that ground and surface waters are protected. programs can range from changing individual habits education to protecting water resources through lan suggestions are:

1. Minimize erosion by establishing windbreaks, pl and practicing contour farming.
2. Establish buffer strips or grassed waterways to re sediment.
3. Use diversions and terraces to intercept runoff an
4. Your County Extension Office can recommend t of fertilizers to apply to crops and fields and answ proper pesticide use, storage, and disposal.
5. Contact the Soil Conservation Service for help in conservation plan to control soil erosion and sedi

4. Properly maintain your septic system.
5. Keep animal wastes out of streams and drainage
6. Support local, state, and federal efforts to protect

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How does nonpoint source pollution enter groundwater?

As water moves over the landscape, either as surface water runoff or as infiltration to the groundwater, it can pick up and/or dissolve chemicals with which it comes into contact, carrying them to ground and surface water resources. The type of contaminants picked up by runoff or infiltrating waters will vary depending on the type of land use in the area and the potential sources of contamination that exist. For example, runoff waters from a residential area may contain fertilizers and pesticides from lawns and gardens, and contaminants associated with automobile use, like gasoline, motor oil, or lead.

What is soil erosion?

Erosion is the movement of soil particles by wind and water. In Hawaii, soil erosion occurs on agricultural, forest, military, and urban lands where there is a lack of vegetative cover. Improperly designed roads, grading practices, overgrazing, and disturbance from feral pigs and goats are some causes of erosion.

Soil can be both a water pollutant and a carrier of other pollutants. Sediments can clog waterways and drainage areas, which in turn can reduce the capacity of that drainage area to retain flood waters. Additionally, pesticides, toxins, and nutrients can attach themselves to eroding soil particles and be carried to surface waters. Eventually, the eroded soil particles can be deposited in our bays where the marine ecosystem and recreational uses can be affected. Costly maintenance and dredging may be needed to maintain waterways and bays.

Controlling soil erosion on the farm, in urban areas, in the home landscape, and on military lands is necessary to help protect our water resources.

What can you do in your garden?

Once our water resources are contaminated, clean up and maintenance technologies can be expensive. The best protection is prevention. Safeguarding our current and future resources is imperative. Each of us must ensure that ground and surface waters are protected. Local protection programs can range from changing individual habits through public education to protecting water resources through land use controls. Some suggestions are:

1. Minimize erosion by establishing windbreaks, planting cover crops, and practicing contour farming.
2. Establish buffer strips or grassed waterways to reduce runoff and sediment.
3. Use diversions and terraces to intercept runoff and sediment.
4. Your County Extension Office can recommend the proper amounts of fertilizers to apply to crops and fields and answer questions about proper pesticide use, storage, and disposal.
5. Contact the Soil Conservation Service for help in developing a conservation plan to control soil erosion and sedimentation.

What can you do around your home?

1. Cover bare soil with vegetation, especially sloping areas and places near water bodies.
2. Have your soil tested before applying fertilizers. Apply only what you need.
3. Many common household products contain substances that are considered hazardous, including batteries, motor oil, gasoline, paint thinner, car wax, furniture polish, oven, drain, and toilet cleaners, fertilizers, and pesticides.
    - Identify the products you use that are considered hazardous.
    - Read the label and use only as directed.
    - Buy only what you need and avoid leftovers.
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    - Properly dispose of household hazardous waste.
    - Upgrade from a cesspool to aseptic system.
4. Properly maintain your septic system.
5. Keep animal wastes out of streams and drainage areas.
6. Support local, state, and federal efforts to protect water resources.

Natural Resources Conservation Service • Hawaii

Every little bit hurts Hawai'i.

WATER QUALITY

Nonpoint Source Pollution

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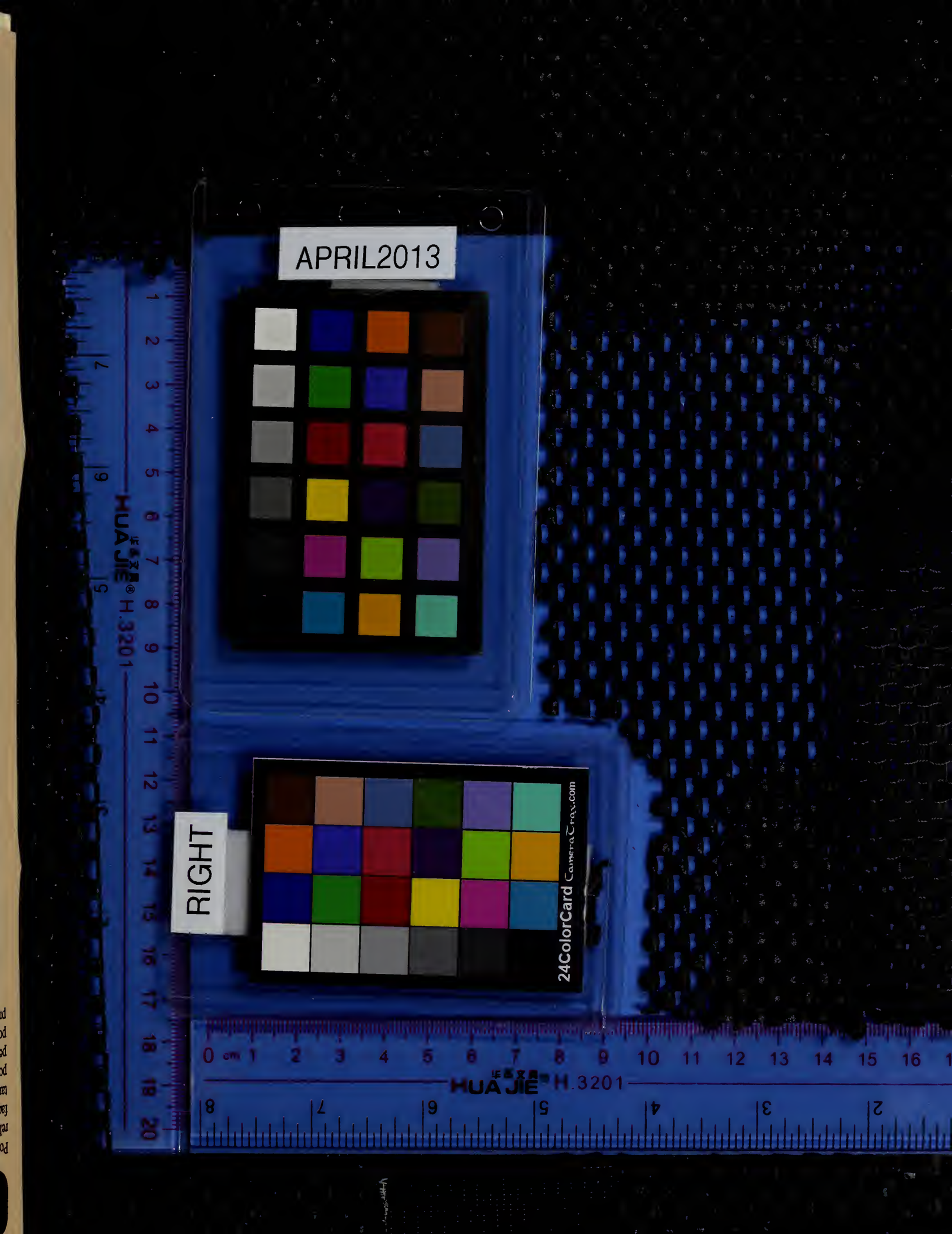
What is nonpoint source pollution?

Pollution entering the environment from a pipe can be relatively easy to identify and control. But, Hawai'i's waters face a threat from a type of pollution that is not as easy to target. Storm water runoff that carries soil particles and pollution from the ground surface such as litter, oil, fertilizer, pesticides, and animal waste, is the major source of nonpoint pollution. As the state grows, so does the need to address the problems of nonpoint sources of pollution.

Water Facts

- Cleaning junk and litter out of rivers improves habitat for fish and other aquatic life.
- Planting grass or trees on loose soil and on riverbanks can help keep the soil from washing away.
- Conserve, protect, and get involved with water quality.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